

Figure 1

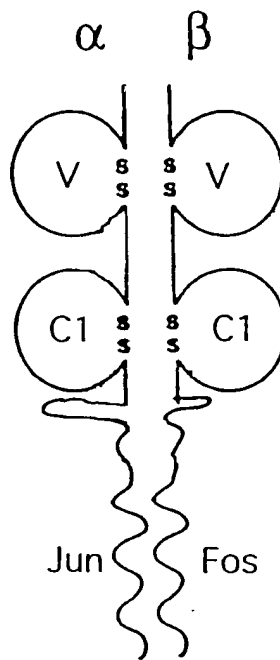


Figure 2

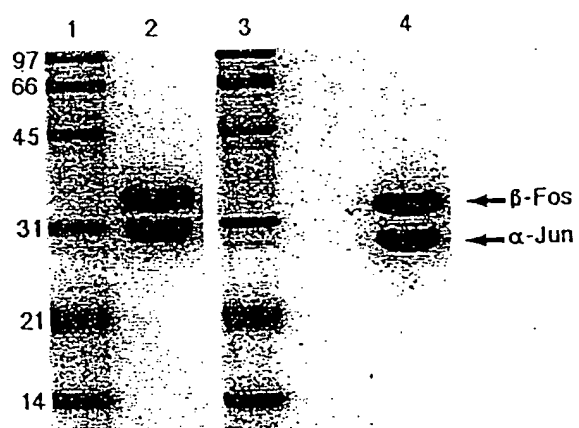
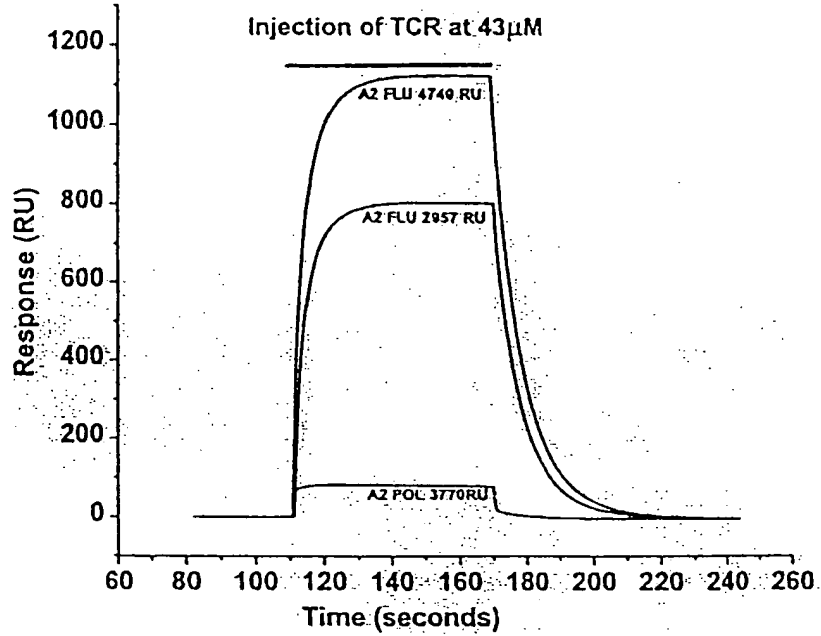


Figure 3



A

Xho I  
5'- TAA ATA CTC GAG GCG CGC CCC CCC CCC CCC CCC -3'

B

Xba I

5'- ATA TAA CCC GGG GAA CCA GAT CCC CAC AGG AAC TTT CTG GGC TGG GGA -3'

C

Xba I  
5'- ATA TAA CCC GGG GAA CCA GAT CCC CAC AGT CTG CTC TAC CCC AGG CC -3'

Figure 5

A

*c-jun* 5' primer:

Xma I

5' - CATACACCCGGGGGTAGAATCGCCCGGCTGGAG -3'

B

*c-jun* 3' primer:

Xho I

5' - GTGTGTGCTCGAGGATCCTAGTAGTTCATGACTTTCTGTTTAAGCTGTGC -3'

Bam HI

C

*c-fos* 5' primer:

Xma I

5' -CATACACCCGGGGGTCTGACTGATACACTCCAAGCGGAG -3'

D

*c-fos* 3' primer:

Xho I

5' - TGTGTGCTCGAGGATCCTAGTAAGCTGCCAGGATGAACTCTAGTTTTTC -3'

Bam HI

Figure 6.

A

5' - AGA ATC GCC CGG CTG GAG GAA AAA GTG AAA ACC TTG AAA GCT CAG AAC TCG GAG CTG GCG  
 R I A R L E E K V K T L K A Q N S E L A  
 TCC ACG GCC AAC ATG CTC AGG GAA CAG GTG GCA CAG CTT AAA CAG AAA GTC ATG AAC TAC -3'  
 S T A N M L R E Q V A Q L K Q K V M N Y

C-jun leucine zipper DNA and amino acid (one-letter code) sequences as fused to TCR alpha chains.

B

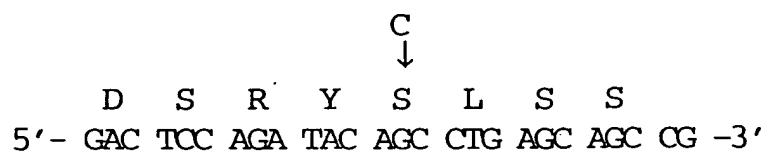
5' - CTG ACT GAT ACA CTC CAA GCG GAG ACA GAC CAA CTA GAA GAT GAG AAG TCT GCT TTG CAG  
 L T D T L Q A E T D Q L E D E K S A L Q  
 ACC GAG ATT GCC AAC CTG CTG AAG GAG AAG GAA AAA CTA GAG TTC ATC CTG GCA GCT TAC -3'  
 T E I A N L L K E K E K L E F I L A A Y

C-fos leucine zipper DNA and amino acid (one-letter code) sequences as fused to TCR beta chains.

Figure 7

**A**

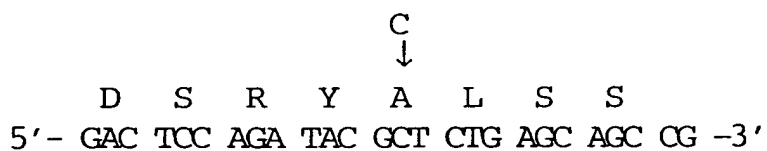
Mutation of cysteine to serine, forwards (sense) primer, indicating amino acid sequence and the mutation:

**B**

Mutation of cysteine to serine, backwards (nonsense) primer:

**C**

Mutation of cysteine to alanine, forwards (sense) primer, indicating amino acid sequence and the mutation:

**D**

Mutation of cysteine to alanine, backwards (nonsense) primer:



Figure 8

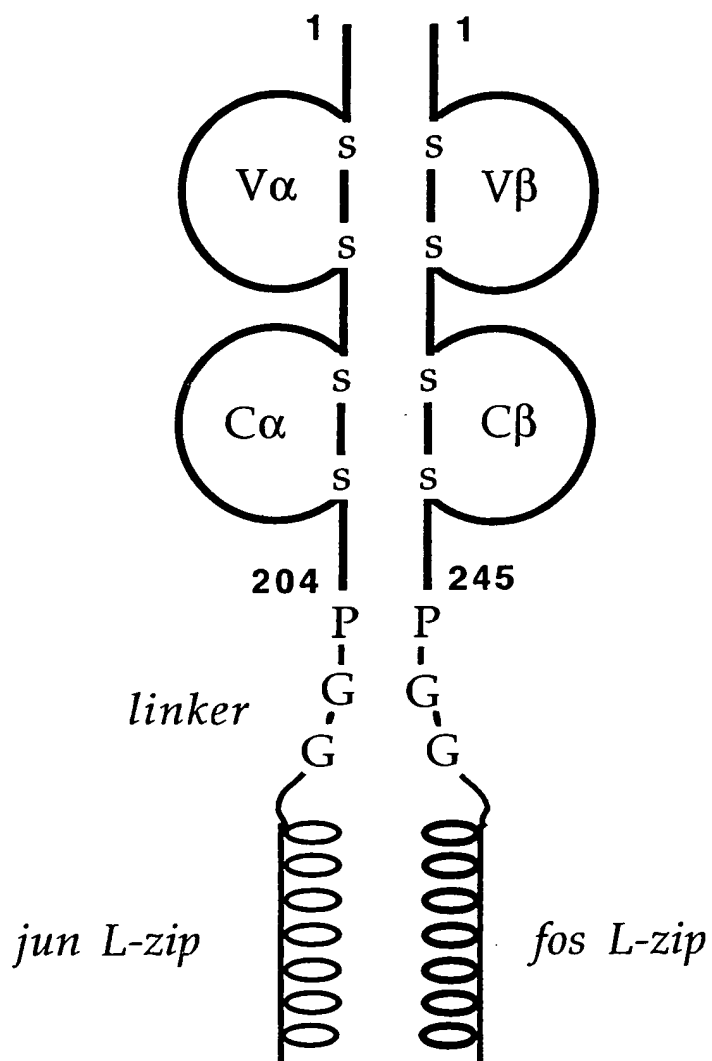




Figure 9

A

5' PCR primer for the human V $\alpha$ 10.2 chain of the JM22 Influenza Matrix peptide-  
HLA-A0201 restricted TCR:

M Q L L E Q S P Q F L

5'- gctctagacat ATG CAa CTa CTa GAa CAa AGt CCT CAG TTT CTA

Nde I

S I Q E

AGC ATC CAA GAG G -3'

B

5' PCR primer for the human V $\beta$ 17 chain of the JM22 Influenza Matrix peptide-  
HLA-A0201 restricted TCR:

M V D G G I T Q S

5'- gctctagacat ATG GTG GAT GGT GGA ATC ACT CAG TCC C -3'

Nde I

C

5' PCR primer for the mouse V $\alpha$ 4 chain of the Influenza nucleoprotein peptide-  
H2-D<sup>b</sup> restricted TCR:

M D S V T Q M Q G Q V

5'- gctctagacat ATG GAt Tct GTt Act CAa ATG CAa Ggt CAa GTG

Nde I

T L S S

ACC CTC TCA TCA G -3'

Figure 9 (continued)

## D

5' PCR primer for the mouse V $\beta$ 11 chain of the Influenza nucleoprotein peptide-H2-D<sup>b</sup> restricted TCR:

5' - gctctagacat ATG GAa CCa ACa AAt Gct GGt GTt ATC CAA

M E P T N A G V I Q

ACA CCT AGG CAC -3'

T P R H

## E

5' PCR primer for the human V $\alpha$ 23 chain of the 003 HIV-1 Gag peptide-HLA-A0201 restricted TCR:

5' - ggaattccat atg AAA CAa GAG GTt ACa CAa ATT CC -3'

M K Q E V T Q I

Nde I

## F

5' PCR primer for the human V $\beta$ 5.1 chain of the 003 HIV-1 Gag peptide-HLA-A0201 restricted TCR:

5' - ggaattccat atg AAa GCT GGA GTt ACT CAA ACT CC -3'

M K A G V T Q T

Figure 9 (continued)

G

5' PCR primer for the human V $\alpha$ 2.3 chain of the HTLV-1 Tax peptide-HLA-A0201 restricted A6 TCR:

M   Q   K   E   V   E   Q   K

5' -cccccc cat ATG CAG AAG GAA GTG GAG CAG AAC -3'

Nde I

H

5' PCR primer for the human V $\beta$ 12.3 chain of the HTLV-1 Tax peptide-HLA-A0201 restricted A6 TCR:

M   K   A   G   V   T   Q   T

5' - ccccccc cat ATG AAC GCT GGT GTC ACT CAG ACC -3'

Nde I

I

5' PCR primer for the human V $\alpha$ 17.2 chain of the HTLV-1 Tax peptide-HLA-A0201 restricted B7 TCR:

M   Q   Q   K   N   D   D   Q   Q   V

5' -cccccc cat ATG CAA CAa AAa AAT GAT GAC CAG CAA GTT

Nde I

K   Q   N

AAG CAA AAT -3'

Figure 9 (continued)

J

5' PCR primer for the human V $\beta$ 12.3 chain of the HTLV-1 Tax peptide-HLA-A0201 restricted B7 TCR:

			M	N	A	G	V	T	Q	T	P	K	F
5'	-cccccc	cat	ATG	AAC	GCT	GGT	GTC	ACT	CAG	ACC	CCA	AAA	TTC
			Nde I										

Q

CAG -3'

K

3' PCR primer for human C $\alpha$  chains, generally applicable:

5'	-	cataca	ccc	ggg	GGA	ACT	TTC	TGG	GCT	GGG	GAA	GAA	GG	-3'
			Xma I											

L

3' PCR primer for human C $\beta$  chains, generally applicable:

5'	-	cataca	ccc	ggg	GTC	TGC	TCT	ACC	CCA	GGC	CTC	-3'
			Xma I									

Figure 10

## TCR alfa&gt;

M Q L L E Q S P Q F L S I Q E G E N L T  
 ATGCAaCTaCTaGAaCAaAGtCCTCAGTTTCTAAGCATCCAAGAGGGAGAAAATCTCACT

V Y C N S S S V F S S L Q W Y R Q E P G  
 GTGTACTGCAACTCCTCAAGTGTMTTTCAGCTTACAATGGTACAGACAGGAGCCTGGG

E G P V L L V T V V T G G E V K K L K R  
 GAAGGTCTGTCTCTGGTGACAGTAGTTACGGGTGGAGAAGTGAAGAAGCTGAAGAGA

L T F Q F G D A R K D S S L H I T A A Q  
 CTAACCTTTCAGTTTGGTGATGCAAGAAAGGACAGTTCTCTCCACATCACTGCGGCCAG

P G D T G L Y L C A G A G S Q G N L I F  
 CCTGGTGATACAGGCCTCTACCTCTGTGTCAGGAGCGGGAAGCCAAGGAAATCTCATCTTT

G K G T K L S V K P N I Q N P D P A V Y  
 GGAAAAGGCACTAAACTCTCTGTAAACCAAATATCCAGAACCCTGACCCTGCCGTGTAC

Q L R D S K S S D K S V C L F T D F D S  
 CAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGCCTATTCACCGATTTTGATCTCT

Q T N V S Q S K D S D V Y I T D K T V L  
 CAAACAAATGTGTACAAAGTAAGGATTCTGATGTGTATATCACAGACAAAACGTGCTA

D M R S M D F K S N S A V A W S N K S D  
 GACATGAGGTCTATGGACTTCAAGAGCAACAGTGCTGTGGCCTGGAGCAACAAATCTGAC

F A C A N A F N N S I I P E D T F F P S  
 TTTGCATGTGCAACGCCTTCAACAACAGCATTATTCCAGAAGACACCTTCTTCCCAGC

<TCR alfa linker c-jun>

P E S S P G G R I A R L E E K V K T L K  
 CCAGAAAGTTCCcccgggGGTAGAATCGCCCGGCTGGAGGAAAAAGTGAAAACCTTGAAA

A Q N S E L A S T A N M L R E Q V A Q L  
 GCTCAGAACTCGGAGCTGGCGTCCACGGCCAACATGCTCAGGGAACAGGTGGCACAGCTT

K Q K V M N Y \*  
 AAACAGAAAGTCATGAACCTACTAG

Figure 11

## TCR beta&gt;

M V D G G I T Q S P K Y L F R K E G Q N  
ATGGTGGATGGTGGGAATCACTCAGTCCCCAAAGTACCTGTTTCAGAAAGGAAGGACAGAAT

V T L S C E Q N L N H D A M Y W Y R Q D  
GTGACCTGAGTTGTGAACAGAATTTGAACCACGATGCCATGTACTGGTACCGACAGGAC

P G Q G L R L I Y Y S Q I V N D F Q K G  
CCAGGGCAAGGGCTGAGATTGATCTACTACTCACAGATAGTAAATGACTTTTCAGAAAGGA

D I A E G Y S V S R E K K E S F P L T V  
GATATAGCTGAAGGGTACAGCGTCTCTCGGGAGAAGAAGGAATCCTTTCTCTCACTGTG

T S A Q K N P T A F Y L C A S S S R S S<sub>q</sub>  
ACATCGGCCCCAAAGAACCCGACAGCTTTCTATCTCTGTGCCAGTAGTTTCGAGGAGCTCC

Y E Q Y F G P G T R L T V T E D L K N V  
TACGAGCAGTACTTCGGGCGGGGCACCGGCTCACGGTCACAGAGGACCTGAAAAACGTT

F P P E V A V F E P S E A E I S H T Q K  
TTCCACCCGAGGTCGCTGTGTTTGAACCATCAGAAGCAGAGATCTCCACACCCAAAG

A T L V C L A T G F Y P D H V E L S W W  
GCCACACTGGTGTGCCTGGCCACAGGCTTCTACCCCGACCACGTGGAGCTGAGCTGGTGG

V N G K E V H S G V S T D P Q P L K E Q  
GTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCACAGACCCGAGCCCCCTCAAGGAGCAG

P A L N D S R Y C L S S R L R V S A T F  
CCCGCCCTCAATGACTCCAGATACTGCCTGAGCAGCCGCCTGAGGGTCTCGGCCACCTTC

W Q N P R N H F R C Q V Q F Y G L S E N  
TGGCAGAACCCCCGCAACCACTTCCGCTGTCAAGTCCAGTTCTACGGGCTCTCGGAGAAT

D E W T Q D R A K P V T Q I V S A E A W  
GACGAGTGGACCCAGGATAGGGCCAAACCTGTCACCCAGATCGTCAGCGCCGAGGCCTGG

<TCR beta linker c-fos>

G R A D P G G L T D T L Q A E T D Q L E  
GGTAGAGCAGACcccgggGGTCTGACTGATACACTCCAAGCGGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L  
GACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAACTA

E F I L A A Y \*  
GAGTTCATCCTGGCAGCTTACTAG

10044306-11304  
TCR beta

Figure 12

## TCR alfa&gt;

M N Y S P A L V T V M L F V F G R T H G  
ATGAACTATTCTCCAGCTTTAGTGACTGTGATGCTGTTTGTGTTTGGGAGGACCCATGGA

D S V T Q M Q G Q V T L S E D D F L F I  
GACTCAGTAACCCAGATGCAAGGTCAAGTGACCCCTCTCAGAAGACGACTTCCTATTTPATA

N C T Y S T T W Y P T L F W Y V Q Y P G  
AACTGTACTTATTCAACCACATGGTACCCGACTCTTTTCTGGTATGTCCAATATCCTGGA

E G P Q L L L K V T T A N N K G I S R G  
GAAGGTCCACAGCTCCTTTTGAAGTCACAACAGCCAACAACAAGGGAATCAGCAGAGGT

F E A T Y D K G T T S F H L Q K A S V Q  
TTTGAAGCTACATATGATAAAGGAACAACGTCCTTCCACTTGACAGAAAGCCTCAGTGCAG

E S D S A V Y Y C V L G D R Q G G R A L  
GAGTCAGACTCTGCTGTGTACTACTGTGTGCTGGGTGATCGACAGGGAGGCAGAGCTCTG

I F G T G T T V S V S P N I Q N P E P A  
ATATTTGGAACAGGAACACGGTATCAGTCAGCCCCAACATCCAGAACCAGAACCTGCT

V Y Q L K D P R S Q D S T L C L F T D F  
GTGTACCAGTTAAAAGATCCTCGGTCTCAGGACAGCACCCCTCTGCCTGTTTACCGACTTT

D S Q I N V P K T M E S G T F I T D K T  
GACTCCCAAATCAATGTGCCGAAAACCATGGAATCTGGAACGTTTCACTGACAAAAC

V L D M K A M D S K S N G A I A W S N Q  
GTGCTGGACATGAAAGCTATGGATTCCAAGAGCAATGGGGCCATTGCCTGGAGCAACCAG

T S F T C Q D I S K E T N A T Y P S S D  
ACAAGCTTCACCTGCCAAGATATCTCCAAAGAGACCAACGCCACCTACCCCAGTTCAGAC

## &lt;TCR alfa linker c-jun&gt;

V P G G R I A R L E E K V K T L K A Q N  
GTTccccgggGTAGAATCGCCCGGCTGGAGGAAAAAGTGAAAACCTTGAAAGCTCAGAAC

S E L A S T A N M L R E Q V A Q L K Q K  
TCGGAGCTGGCGTCCACGGCCAACATGCTCAGGGAACAGGTGGCACAGCTTAAACAGAAA

V M N Y \*  
GTCATGAACTACTAG

10044326 = 44304

Figure 13

TCR beta>  
M K A G V T Q T P R Y L I K T R G Q Q V  
ATGAAAGCTGGAGTTACTCAAACCTCCAAGATATCTGATCAAAACGAGAGGACAGCAAGTG  
T L S C S P I S G H R S V S W Y Q Q T P  
ACACTGAGCTGCTCCCCCTATCTCTGGGCATAGGAGTGTATCCTGGTACCAACAGACCCCA  
G Q G L Q F L F E Y F S E T Q R N K G N  
GGACAGGGCCTTCAGTTCCTCTTTGAATACTTCAGTGAGACACAGAGAAACAAAGGAAAC  
F P G R F S G R Q F S N S R S E M N V S  
TTCCCTGGTCGATTCTCAGGGCGCCAGTTCTCTAACTCTCGCTCTGAGATGAATGTGAGC  
T L E L G D S A L Y L C A S S F D S G N  
ACCTTGGAGCTGGGGGACTCGGCCCTTTATCTTTGCGCCAGCAGCTTCGACAGCGGGAAT  
S P L H F G N G T R L T V T E D L N K V  
TCACCCCTCCACTTTGGGAACCGGACCAGGCTCACTGTGACAGAGGACCTGAACAAGGTG  
F P P E V A V F E P S E A E I S H T Q K  
TTCCCAACCCGAGGTGCTGTGTTTGAGCCATCAGAAGCAGAGATCTCCACACCCAAAAG  
A T L V C L A T G F F P D H V E L S W W  
GCCACACTGGTGTGCCTGGCCACAGGCTTCTTCCCTGACCACGTGGAGCTGAGCTGGTGG  
V N G K E V H S G V S Q D P Q P L K E Q  
GTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCCAGGACCCGAGCCCCTCAAGGAGCAG  
P A L N D S R Y S L S S R L R V S A T F  
CCCGCCCTCAATGACTCCAGATACAGCCTGAGCAGCCGCTGAGGGTCTCGGCCACCTTC  
W Q N P R N H F R C Q V Q F Y G L S E N  
TGGCAGAACCCCGCAACCACTTCCGCTGTCAAGTCCAGTTCTACGGGCTCTCGGAGAAT  
D E W T Q D R A K P V T Q I V S A E A W  
GACGAGTGGACCCAGGATAGGGCCAAACCTGTCAACCAGATCGTCAGCGCCGAGGCTGG  
<TCR beta linker c-fos>  
G R A D P G G L T D T L Q A E T D Q L E  
GGTAGAGCAGACCCCGGGGTCTGACTGATACACTCCAAGCGGAGACAGATCAACTTGAA  
D K K S A L Q T E I A N L L K E K E K L  
GACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAACTA  
E F I L A A Y \*  
GAGTTCATCCTGGCAGCTTACTAG



TCR alfa>

M K Q E V T Q I P A A L S V P E G E N L  
ATGAAACAAGAAGTTACACAGATTCTCTGCAGCTCTGAGTGTCCAGAAGGAGAAAACCTTG

V L N C S F T D S A I Y N L Q W F R Q D  
GTTCTCAACTGCAGTTTCACTGATAGCGCTATTTTACAACCTCCAGTGGTTTAGGCAGGAC

P G K G L T S L L L I Q S S Q R E Q T S  
CCTGGGAAAGGTCTCACATCTCTGTTGCTTATTTCAGTCAAGTCAGAGAGAGCAAACAAGT

G R L N A S L D K S S G R S T L Y I A A  
GGAAGACTTAATGCCTCGCTGGATAAATCATCAGGACGTAGTACTTTTATACATTGCAGCT

S Q P G D S A T Y L C A V T N F N K F Y  
TCTCAGCCTGGTGACTCAGCCACCTACCTCTGTGCTGTGACCAACTTCAACAAATTTTAC

F G S G T K L N V K P N I Q N P D P A V  
TTTGGATCTGGGACCAAACCTCAATGTAAAACCAAATATCCAGAACCCTGACCCTGCCGTG

Y Q L R D S K S S D K S V C L F T D F D  
TACCAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGCCTATTACCGATTTTGAT

S Q T N V S Q S K D S D V Y I T D K T V  
TCTCAAACAAATGTGTCAAAAGTAAGGATTCTGATGTGTATATCACAGACAAAACCTGTG

L D M R S M D F K S N S A V A W S N K S  
CTAGACATGAGGTCTATGGACTTCAAGAGCAACAGTGCTGTGGCCTGGAGCAACAAATCT

D F A C A N A F N N S I I P E D T F F P  
GACTTTGCATGTGCAAACGCCTTCAACAACAGCATTATTCCAGAAGACACCTTCTTCCCC

<TCR alfa linker c-jun>

S P E S S P G G R I A R L E E K V K T L  
AGCCCAAGAAAGTTCCcgcgggGTAGAATCGCCCGGCTGGAGGAAAAAGTGAAAACCTTG

K A Q N S E L A S T A N M L R E Q V A Q  
AAAGCTCAGAACTCGGAGCTGGCGTCCACGGCCAACATGCTCAGGGAACAGGTGGCACAG

L K Q K V M N Y \*  
CTTAAACAGAAAGTCATGAACCTACTAG

Figure 15

TCR beta&gt;

M K A G V T Q T P R Y L I K T R G Q Q V  
ATGAAAGCTGGAGTTACTCAAACCTCAAGATATCTGATCAAAACGAGAGGACAGCAAGTG

T L S C S P I S G H R S V S W Y Q Q T P  
ACACTGAGCTGCTCCCTATCTCTGGGCATAGGAGTGTATCCTGGTACCAACAGACCCCA

G Q G L Q F L F E Y F S E T Q R N K G N  
GGACAGGGCCTTCAGTTCTCTTTGAATACTTCAGTGAGACACAGAGAAACAAAGGAAAC

F P G R F S G R Q F S N S R S E M N V S  
TTCCCTGGTCGATTCTCAGGGCGCCAGTTCTCTAACTCTCGCTCTGAGATGAATGTGAGC

T L E L G D S A L Y L C A S S F D S G N  
ACCTTGGAGCTGGGGGACTCGGCCCTTTATCTTTGCGCCAGCAGCTTCGACAGCGGGAAT

S P L H F G N G T R L T V T E D L N K V  
TCACCCCTCCACTTTGGGAACGGGACCAGGCTCACTGTGACAGAGGACCTGAACAAGGTG

F P P E V A V F E P S E A E I S H T Q K  
TTCCACCCCGAGGTGCTGTGTTTGAGCCATCAGAAGCAGAGATCTCCACACCCAAAAG

A T L V C L A T G F F P D H V E L S W W  
GCCCACTGGTGTGCCTGGCCACAGGCTTCTTCCCTGACCACGTGGAGCTGAGCTGGTGG

V N G K E V H S G V S Q D P Q P L K E Q  
GTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCCAGGACCCGCAGCCCCCTCAAGGAGCAG

P A L N D S R Y S L S S R L R V S A T F  
CCCGCCCTCAATGACTCCAGATACAGCCTGAGCAGCCGCCTGAGGGTCTCGGCCACCTTC

W Q N P R N H F R C Q V Q F Y G L S E N  
TGGCAGAACCCCGCAACCACTTCCGCTGTCAAGTCCAGTTCTACGGGCTCTCGGAGAAT

D E W T Q D R A K P V T Q I V S A E A W  
GACGAGTGGACCCAGGATAGGGCCAAACCTGTCACCCAGATCGTCAGCGCGAGGCCTGG

<TCR beta linker c-fos>

G R A D P G G L T D T L Q A E T D Q L E  
GGTAGAGCAGACcccgggGGTCTGACTGATACACTCCAAGCGGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L  
GACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAAACTA

E F I L A A Y \*  
GAGTTCATCCTGGCAGCTTACTAG

10044326-14304

19/52

Figure 16

TCR alfa>

M Q K E V E Q N S G P L S V P E G A I A  
atgCAGAAGGAAGTGGAGCAGAACTCTGGACCCCTCAGTGTTCAGAGGGAGCCATTGCC

S L N C T Y S D R G S Q S F F W Y R Q Y  
TCTCTCAACTGCACTTACAGTGAACGAGGTTCOCAGTCTTCTTCTGGTACAGACAATAT

S G K S P E L I M S I Y S N G D K E D G  
TCTGGGAAAAGCCCTGAGTTGATAATGTTCATATACTCCAATGGTGACAAAGAAGATGGA

R F T A Q L N K A S Q Y V S L L I R D S  
AGGTTTACAGCACAGCTCAATAAAGCCAGCCAGTATGTTTCTCTGCTCATCAGAGACTOC

Q P S D S A T Y L C A V T T D S W G K L  
CAGCCAGTGAATTGAGCACTAOCCTCTGTGCGGTACAACAGTACAGCTGGGGGAAATG

Q F G A G T Q V V V T P D I Q N P D P A  
CAGTTTGGAGCAGGGACCCAGGTGTGGTCACCCCAGATATCCAGAACCCCTGACCCCTGCC

V Y Q L R D S K S S D K S V C L F T D F  
GTGTACAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGCTATTTCACCGATTTT

D S Q T N V S Q S K D S D V Y I T D K T  
GATTCTCAACAAATGTGTACAAAGTAAGGATTCTGATGTGTATATCACAGACAAACT

V L D M R S M D F K S N S A V A W S N K  
GTGCTAGACATGAGGTCTATGGACTTCAAGAGCAACAGTGTGTGGCTGGAGCAACAAA

S D F A C A N A F N N S I I P E D T F F  
TCTGACTTTGCATGTGCAACGCCCTTCAACAACAGCATTATTCAGAAAGACACCTTCTTC

<TCR alfa linker c-jun>

P S P E S S P G G R I A R L E E K V K T  
CCCAGCCCCAGAAAGTTCCccgggGGTAGAATGGCCCGCTGGAGGAAAAAGTGAAAACC

L K A Q N S E L A S T A N M L R E Q V A  
TTGAAAGCTCAGAACTCGGAGCTGGCGTCCAGGCCAACATGCTCAGGGAACAGGTGGCA

Q L K Q K V M N Y \*  
CAGCTTAAACAGAAAGTCATGAACCTACTAG

THE SEQUENCES

Figure 17

TCR beta>  
M N A G V T Q T P K F Q V L K T G Q S M  
atgAAOCTGGTGTCACTCAGACCCCAAATTCAGGTCTGAAGACAGGACAGCATG  
  
T L Q C A Q D M N H E Y M S W Y R Q D P  
ACACTGCAGTGTGCCCAGGATATGAACCATGAATACATGTCTGGTATGACAAGACCCA  
  
G M G L R L I H Y S V G A G I T D Q G E  
GGCATGGGGCTGAGGCTGATTCATTACTCAGTGGTGTCTGGTATCACTGACCAAGGAGAA  
  
V P N G Y N V S R S T T E D F P L R L L  
GTCCCCAATGGCTACAATGTCTCCAGATCAACCACAGAGGATTTCCCGCTCAGGCTGCTG  
  
S A A P S Q T S V Y F C A S R P G L A G  
TCGGCTGCTCCCTCCAGACATCTGTGTACTTCTGTGTCCAGCAGGCCGGGACTAGGGGA  
  
G R P E Q Y F G P G T R L T V T E D L K  
GGGCGACACAGAGCAGTACTTGGGGCCGGGCACAGGCTCAAGGTCACAGAGGACCTGAAA  
  
N V F P P E V A V F E P S E A E I S H T  
AAGTGTTCACCCGAGGTGCTGTGTTTGAGCCATCAGAAGCAGAGATCTCCACACC  
  
Q K A T L V C L A T G F Y P D H V E L S  
CAAAAGGCCACACTGGTGTGCTGGCCACAGGCTTCTACCCCGACCAAGTGGAGCTGAGC  
  
W W V N G K E V H S G V S T D P Q P L K  
TGGTGGGTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCACAGACCCCGAGCCCTCAAG  
  
E Q P A L N D S R Y A L S S R L R V S A  
GAGCAGCCCGCCCTCAATGACTCCAGATACgctCTGAGCAGCCCGCTGAGGGTCTCGCC  
  
T F W Q N P R N H F R C Q V Q F Y G L S  
ACCTTCTGGCAGAACCCCGCAACCACTTCGGCTGTCAAGTCCAGTTCACGGGCTCTCG  
  
E N D E W T Q D R A K P V T Q I V S A E  
GAGAATGAAGAGTGGACCCAGGATAGGGCCAAACCTGTACCCAGATGCTCAGCCCGAG  
  
<TCR beta linker c-fos>  
A W G R A D P G G L T D T L Q A E T D Q  
GCCTGGGGTAGAGCAGACcccgggGGTCTGACTGATACACTCCAAGCGAGACAGATCAA

Continued .....

21/52

Figure 17 (continued)

L E D K K S A L Q T E I A N L L K E K E  
CTTGAAGACAAGAAGTCTGGTTCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAA

linker Biotinylation tag

K L E F I L A A Y G S G G G L N D I F E  
AAACTAGAGTTCATCTGGCAGCTTACggatccGGTGGTGGTCTGAACGATATTTTIGAA

A Q K I E W H \*  
GCTCAGAAAATCGAATGCCATTAGCTT

FOR THE "SEE-FOOT"

Figure 18

## TCR alfa&gt;

M Q Q K N D D Q Q V K Q N S P S L S V Q  
atgCAACAGAAGAATGATGACCAGCAAGTTAAGCAAAATTCAACATCCCTGAGCGTCCAG

E G R I S I L N C D Y T N S M F D Y F L  
GAAGGAAGAATTTCTATTCTGAACTGTGACTATACTAACAGCATGTTTGATTATTTCCTA

W Y K K Y P A E G P T F L I S I S S I K  
TGGTACAAAAAATACCCCTGCTGAAGGTCCCTACATTCCCTGATATCTATAAGTTCCATTAG

D K N E D G R F T V F L N K S A K H L S  
GATAAAATGAAGATGGAAGATTCACCTGTCTCTTAAACAAAAGTGCCAAGCACCTCTCT

L H I V P S Q P G D S A V Y F C A A M E  
CTGCACATTGTGCCCTCCAGCCTGGAGACTCTGCAGTGTACTTCTGTGCAGCAATGGAG

G A Q K L V F G Q G T R L T I N P N I Q  
GGAGCCCAAGCTGGTATTGTGGCAAGGAACAGGCTGACTATCAACCCAAATATCCAG

N P D P A V Y Q L R D S K S S D K S V C  
AACCCCTGACCCCTGCGGTGTACCAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGC

L F T D F D S Q T N V S Q S K D S D V Y  
CTATTACCGATTTTGTATTCTCAAACAAATGTGTACAAAGTAAGGATTCTGTATGTGTAT

I T D K T V L D M R S M D F K S N S A V  
ATCACAGACAAAATGTGTCTAGACATGAGGTCTATGGACTTCAAGAGCAACAGTGTCTGTG

A W S N K S D F A C A N A F N N S I I P  
GCCTGGAGCAACAAATCTGACTTTGCATGTGCAACGCCTTCAACACAGCATTATTCCA

## &lt;TCR alfa linker c-jun&gt;

E D T F F P S P E S S P G G R I A R L E  
GAAGACACCTTCTTCCCCAGCCCAGAAAGTTCCccccgggGGTAGAATGCCCCGGCTGGAG

E K V K T L K A Q N S E L A S T A N M L  
GAAAAAGTGAAAACCTTGAAAGCTCAGAACTGGAGCTGGCGTCCACGGCCAACATGCTC

R E Q V A Q L K Q K V M N Y \*  
AGGGAACAGGTGGCACAGCTTAAACAGAAAGTCATGAACACTACTAG

Figure 19

TCR beta&gt;

M N A G V T Q T P K F Q V L K T G Q S M  
atgAAOGCTGGTGTCACTCAGACCCCAAAATTCAGGTCTGAAGACAGGACAGAGCATG

T L Q C A Q D M N H E Y M S W Y R Q D P  
ACACTGCAGTGTGCCAGGATATGAACCATGAATACATGTCTGGTATCGACAAGACCCA

G M G L R L I H Y S V G A G I T D Q G E  
GGCATGGGGCTGAGGCTGATTTCATTACTCAGTTGGTGTCTGGTATCACTGACCAAGGAGAA

V P N G Y N V S R S T T E D F P L R L L  
GTCCCCAATGGCTACAATGTCTCCAGATCAACCACAGAGGATTTCCCGCTCAGGCTGCTG

S A A P S Q T S V Y F C A S S Y P G G G  
TGGGCTGCTCCCTCCAGACATCTGTGTACTTCTGTGCCAGCAGTTACCaGCaGGGGGGG

F Y E Q Y F G P G T R L T V T E D L K N  
TTTTACGAGCAGTACTTGGGGCCGGGCACCAGGCTCACGGTCACAGAGGACCTGAAAAAC

V F P P E V A V F E P S E A E I S H T Q  
GTGTTCCCACCCGAGGTGGCTGTGTTTGAGCCATCAGAAGCAGAGATCTCCACACCCAA

K A T L V C L A T G F Y P D H V E L S W  
AAGGCCACACTGGTGTGCTGGCCACAGGCTTCTACCCCGACCACGTTGGAGCTGAGCTGG

W V N G K E V H S G V S T D P Q P L K E  
TGGGTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCACAGACCCGAGCCCTCAAGGAG

Q P A L N D S R Y A L S S R L R V S A T  
CAGCCCGCCCTCAATGACTCCAGATA~~act~~CTGAGCAGCCGCTGAGGGTCTGGCCACC

F W Q D P R N H F R C Q V Q F Y G L S E  
TTCTGGCAGgACCCCGCAACCACTTCCGCTGTCAAGTCCAGTTCTACGGGCTCTGGGAG

N D E W T Q D R A K P V T Q I V S A E A  
AATGACGAGTGGACCCAGGATAGGGCCAAACCGTCAACCAGATCGTCAGCGCCGAGGCC

Continued.....

Figure 19 (continued)

<TCR beta linker c-fos>

W G R A D P G G L T D T L Q A E T D Q L  
 TGGGGTAGAGCAGACcccgggGGTCTGACTGATACACTCCAAGCGGAGACAGATCAACTT

E D K K S A L Q T E I A N L L K E K E K  
 GAAGACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAAA

linker Biotinylation tag>

L E F I L A A Y G S G G L N D I F E A  
 CTAGAGTTCATCTGGCAGCTTACggatccGGTGGTGGTCTGAACGATATTTTGAAGCT

Q K I E W H \*  
 CAGAAAATCGAATGGCATTAAAGCTT

T.D.E.T.T. = 9384T.C.T.



Figure 20

TCR beta>  
M N A G V T Q T P K F Q V L K T G Q S M  
atgAAGCTGGTGTCACCTCAGACCCCAAAATTCAGGTCCTGAAGACAGGACAGAGCATG  
  
T L Q C A Q D M N H E Y M S W Y R Q D P  
ACACTGCAGTGTGCCAGGATATGAACCATGAATACATGTCTGGTATOGACAAGACCCA  
  
G M G L R L I H Y S V G A G I T D Q G E  
GGCATGGGGCTGAGGCTGATTCACTACTCAGTTGGTGCTGGTATCACTGACCAAGGAGAA  
  
V P N G Y N V S R S T T E D F P L R L L  
GTCCCAATGGCTACAAATGTCTCCAGATCAACCACAGAGGATTTCCCGCTCAGGCTGCTG  
  
S A A P S Q T S V Y F C A S R P G L A G  
TGGCTGCTCCCTCCAGACATCTGTGTACTTCTGTGCCAGCAGGCCGGGACTAGCGGA  
  
G R P E Q Y F G P G T R L T V T E D L K  
GGGCGACACAGCAGTACTTGGGGCCGGGCACCAAGGCTCACGGTCAAGAGGACCTGAAA  
  
N V F P P E V A V F E P S E A E I S H T  
AAGTGTTCCCAACCGAGGTGCTGTGTGTGAGCCATCAGAAGCAGAGATCTCCACACC  
  
Q K A T L V C L A T G F Y P D H V E L S  
CAAAAGGCCACACTGGTGTGCTGGCCACAGGCTTCTACCCCGACCAAGTGGAGCTGAGC  
  
W W V N G K E V H S G V S T D P Q P L K  
TGGTGGGTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCACAGACCCCGAGCCCCCTCAAG  
  
E Q P A L N D S R Y A L S S R L R V S A  
GAGCAGCCCGCCCTCAATGACTCCAGATAAGCTCTGAGCAGCCCGCTGAGGGTCTCGCC  
  
T F W Q D P R N H F R C Q V Q F Y G L S  
ACCTTCTGGCAGGACCCCGCAACCACTTCCGCTGTCAAGTCCAGTTCTACGGGCTCTCG  
  
E N D E W T Q D R A K P V T Q I V S A E  
GAGAATGACGAGTGGACCCAGGATAGGGCCAAACCTGTCAACCAGATGTGACGCGCGAG

Continued.....

<TCR beta linker c-fos>  
A W G R A D P G G L T D T L Q A E T D Q  
GCCTGGGGTAGAGCAGACccccgggGGTCTGACTGATACACTCCAAGCGGAGACAGATCAA  
  
L E D K K S A L Q T E I A N L L K E K E  
CTTGAGACAGAAGTCTGGTTGCAGACCGAGATTGCCAATCTACTGAAGAGAGAAGGAA  
  
linker Biotinylation tag>  
K L E F I L A A Y G S G G G L N D I F E  
AAACTAGAGTTCATCTCTGGCAGCTTACggatccGGTGGTGGTCTGAACGATATTTTIGAA  
  
A Q K I E W H \*  
GCTCAGAAAATCGAATGGCATTAGCTTT

Linker<-> fos  
P G G L T D T L Q A E T D Q  
5'- ccc ggg GGT CTG ACT GAT ACA CTC CAA GCG GAG ACA GAT CAA  
Xma I

L K E K E K L E F I L A A Y G  
 CTG AAA GAG AAG GAA AAA CTA GAG TTC ATC CTG GCA GCT TAC gga  
 Bam

S G G G L N D I F E A Q K I E  
ccc GGT GGT GGT CTG AAC GAT ATT TTT GAA GCT CAG AAA ATC GAA  
 HI

W H \*

TGG CAT TAA GCT T -3'

Hind III

28/52

Figure 22

A

Reverse primer:

5'-ACACAC GGA TCC GTA AGC TGC GAC GAT GAA CTC GAT TTT CTT-  
3'

Bam HI

FOOTNOTES

29/52

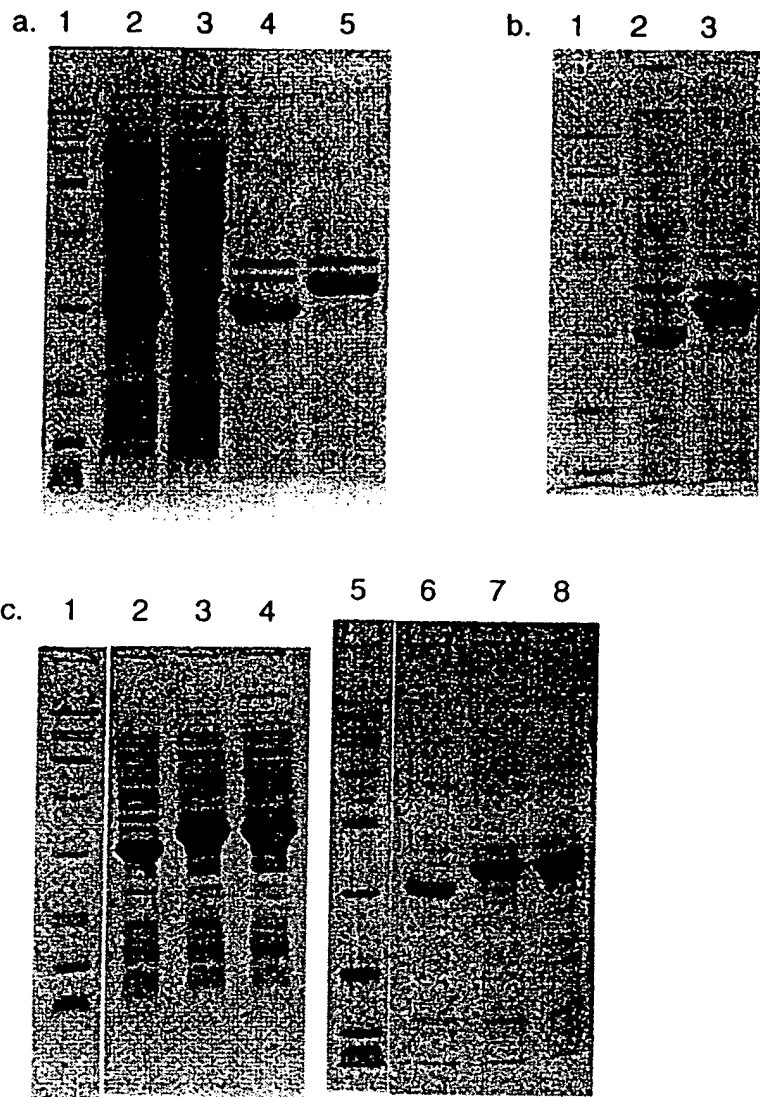


Figure 23

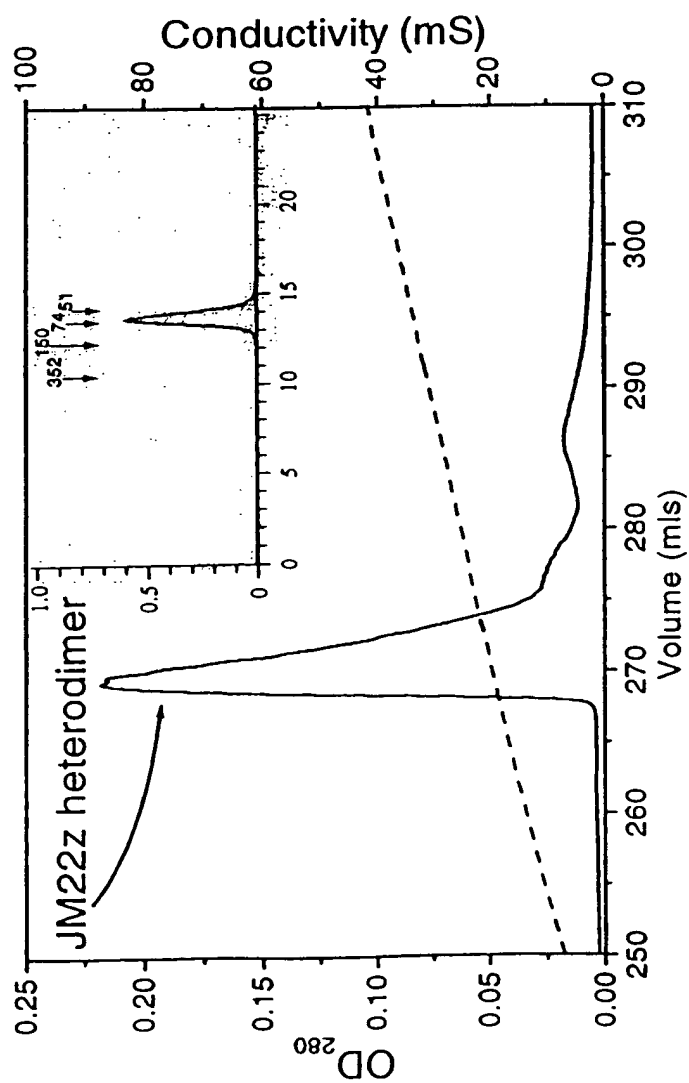


Figure 24.

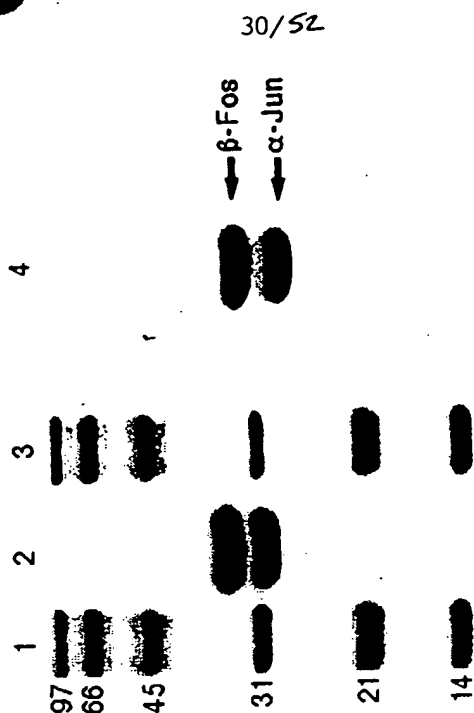
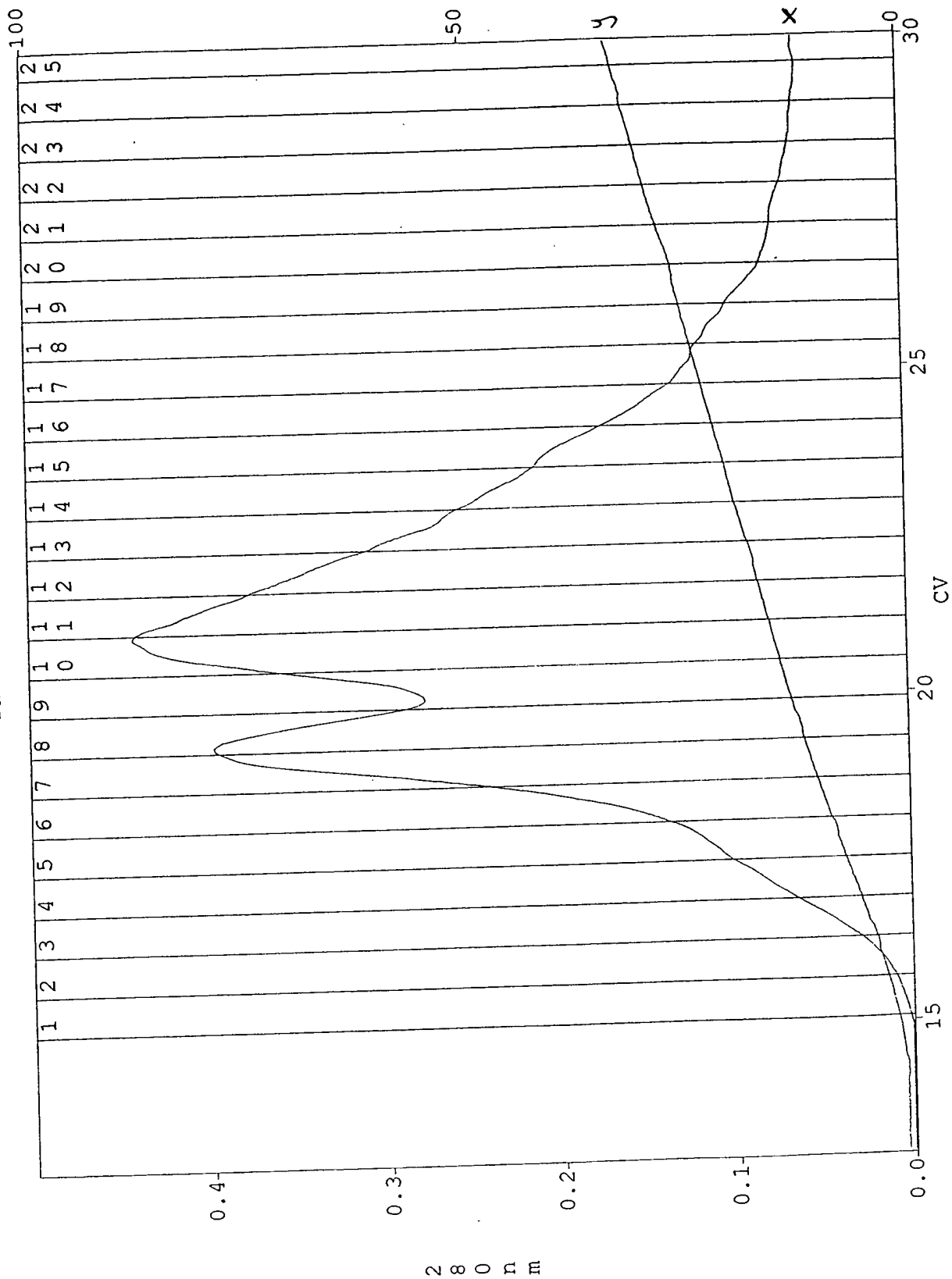


Figure 25.

Figure 26ai

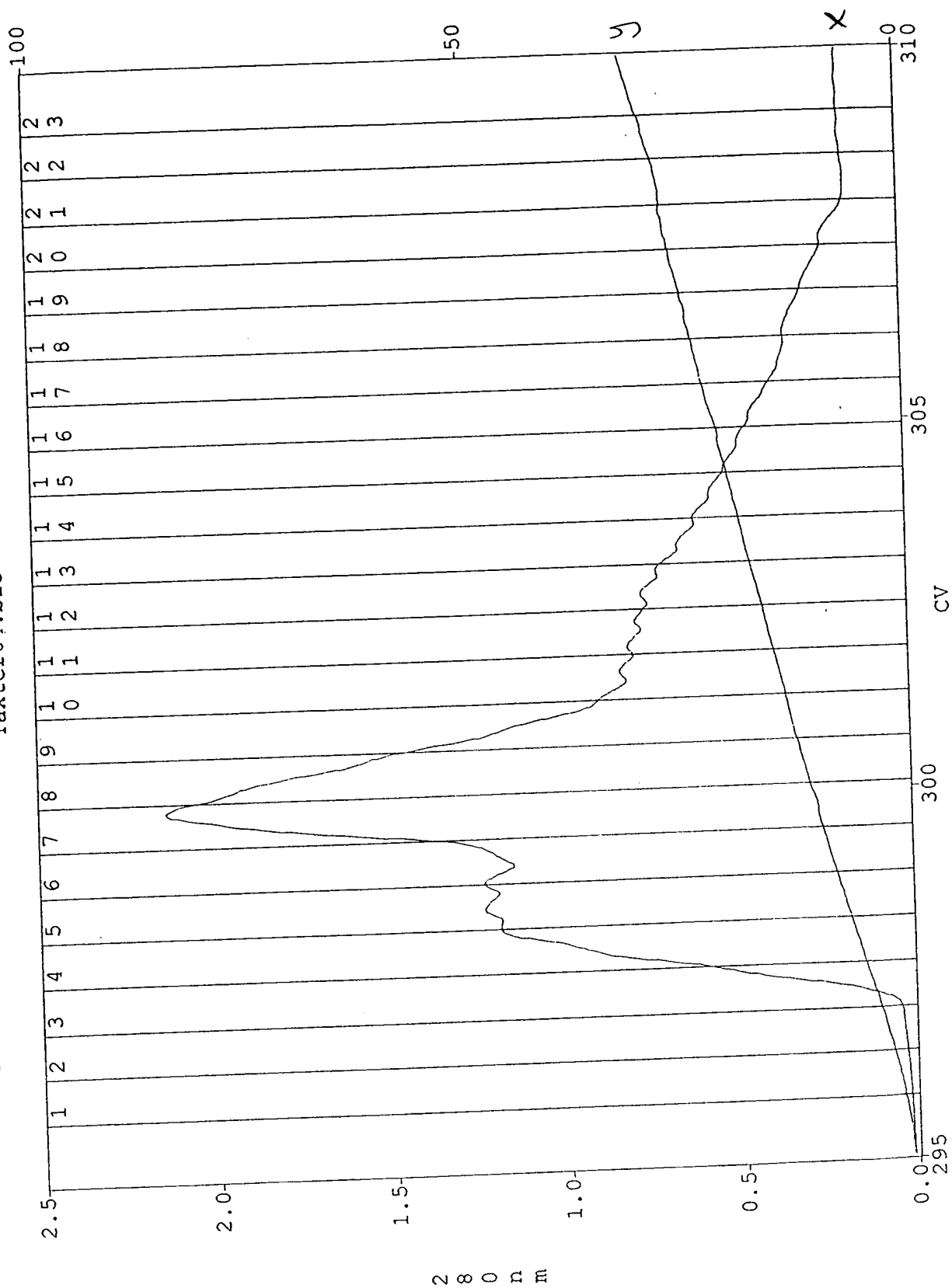
Taxtcr05.bio -



FOOT "GETT"

Figure 26bi

Taxtcr04.bio -

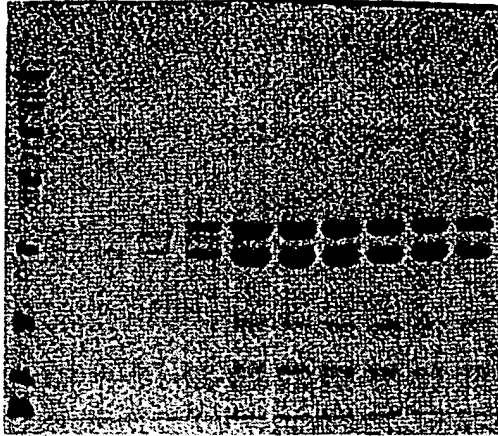


32/62

MS



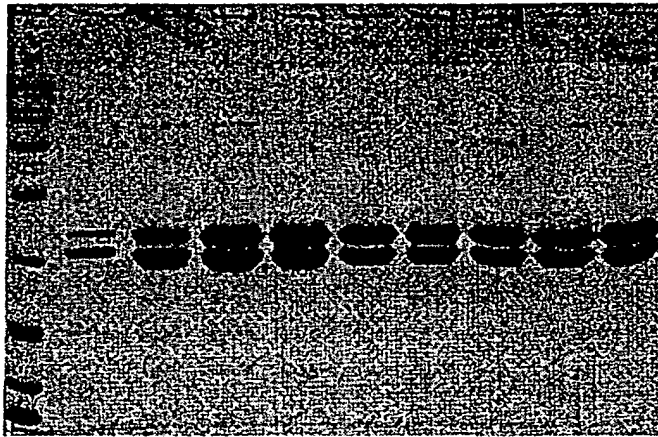
a.ii. 1 2 3 4 5 6 7 8 9 10 11



a.iii. 1 2



b.ii. 1 2 3 4 5 6 7 8 9 10



b.iii. 1 2 3

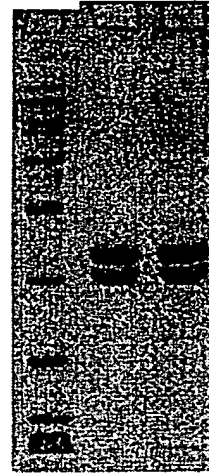


Figure 26

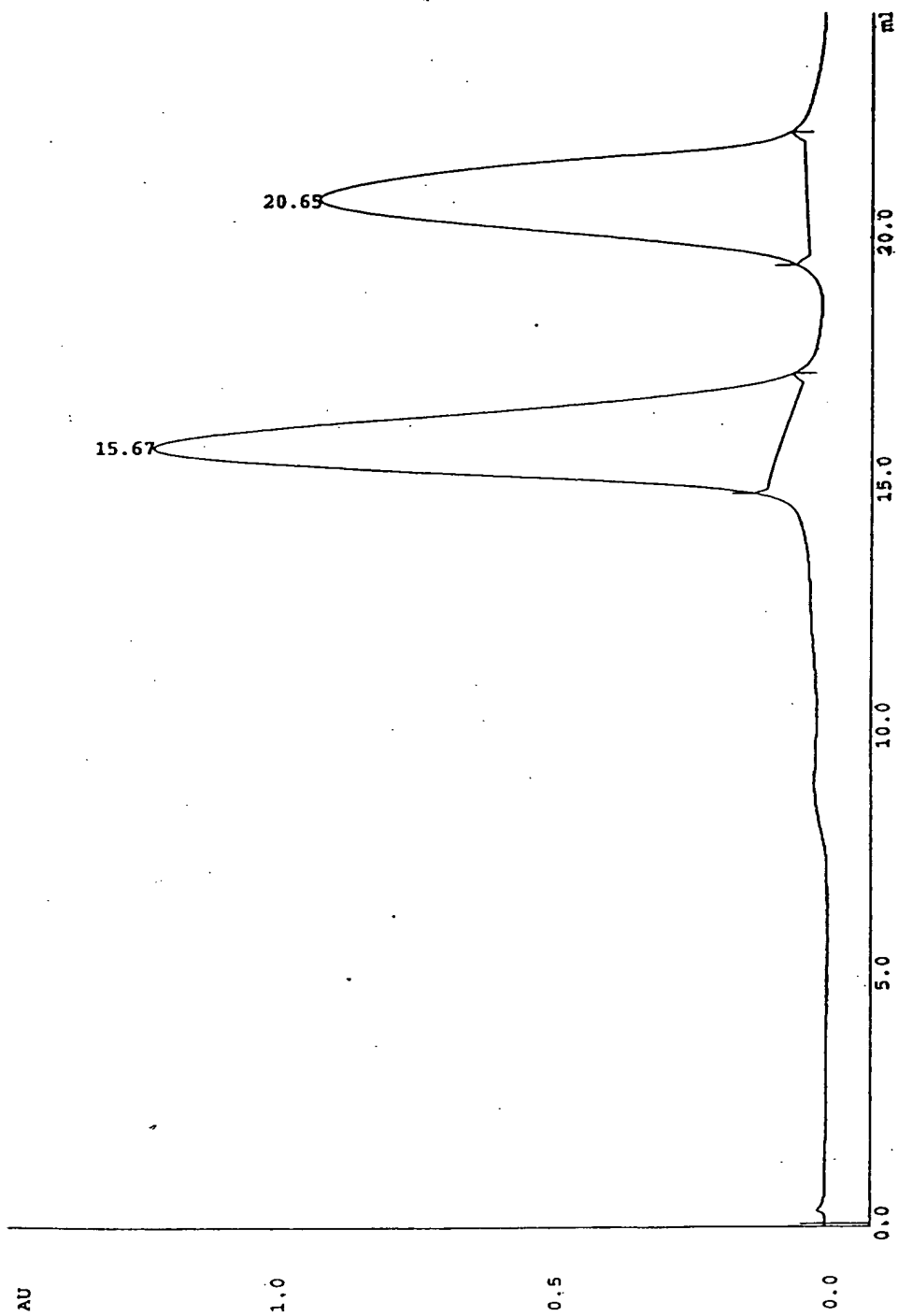


Figure 27

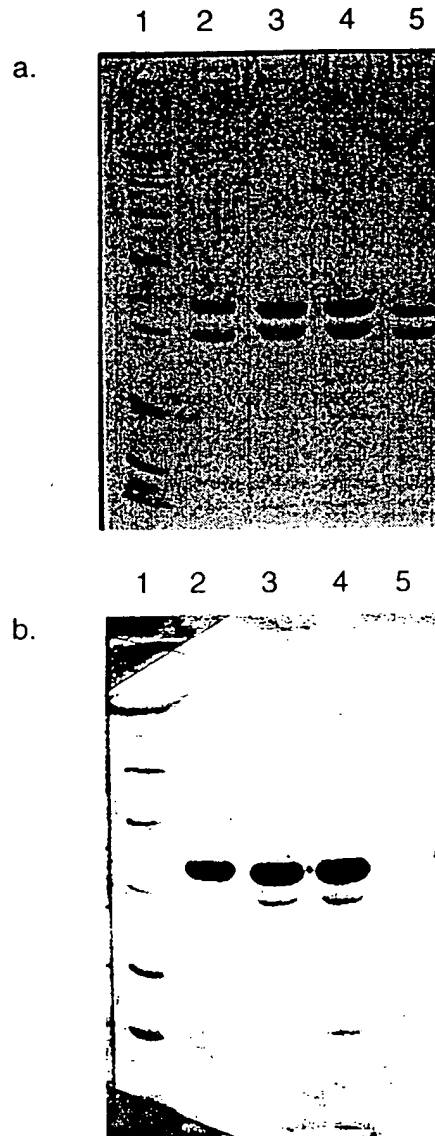


Figure 28

36/52

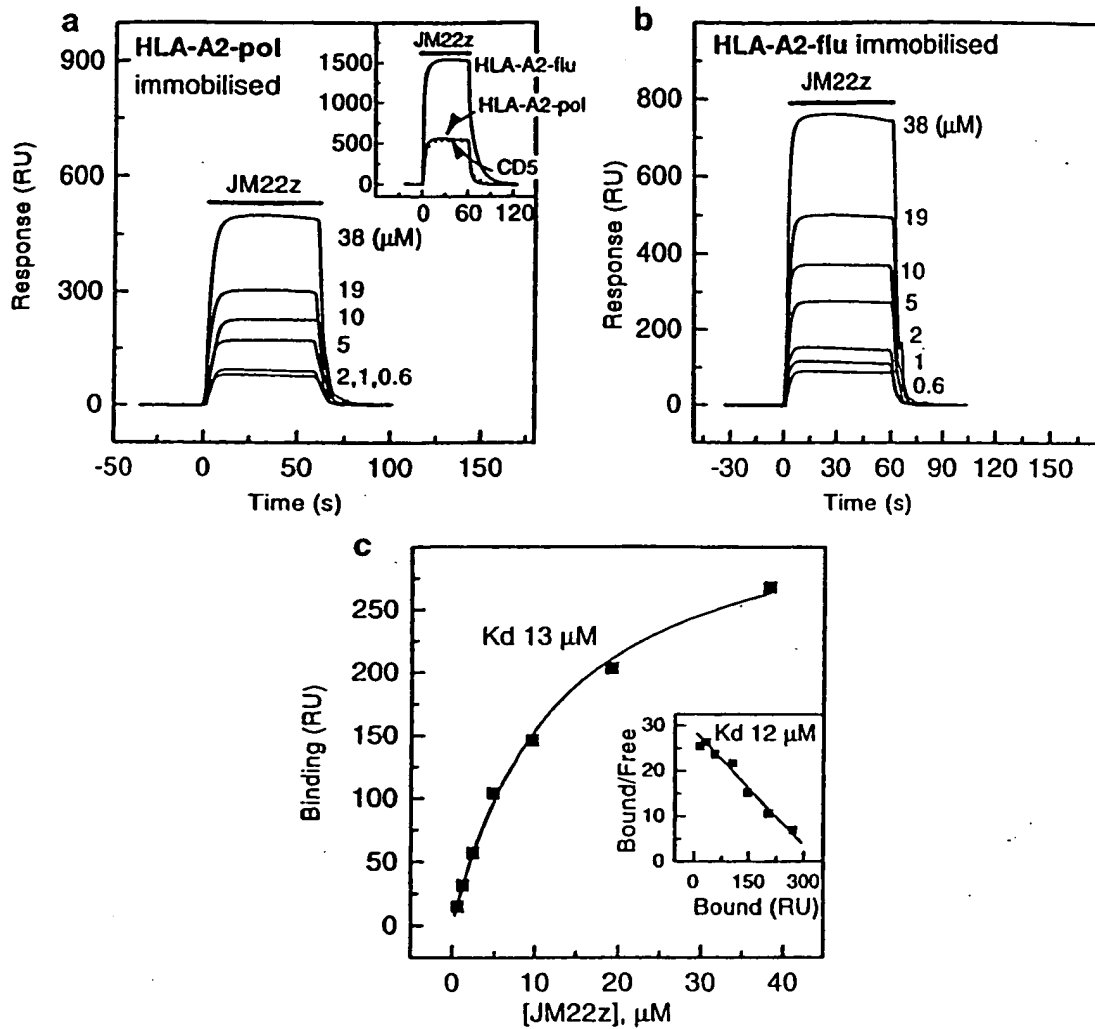


Figure 29

Figure 30

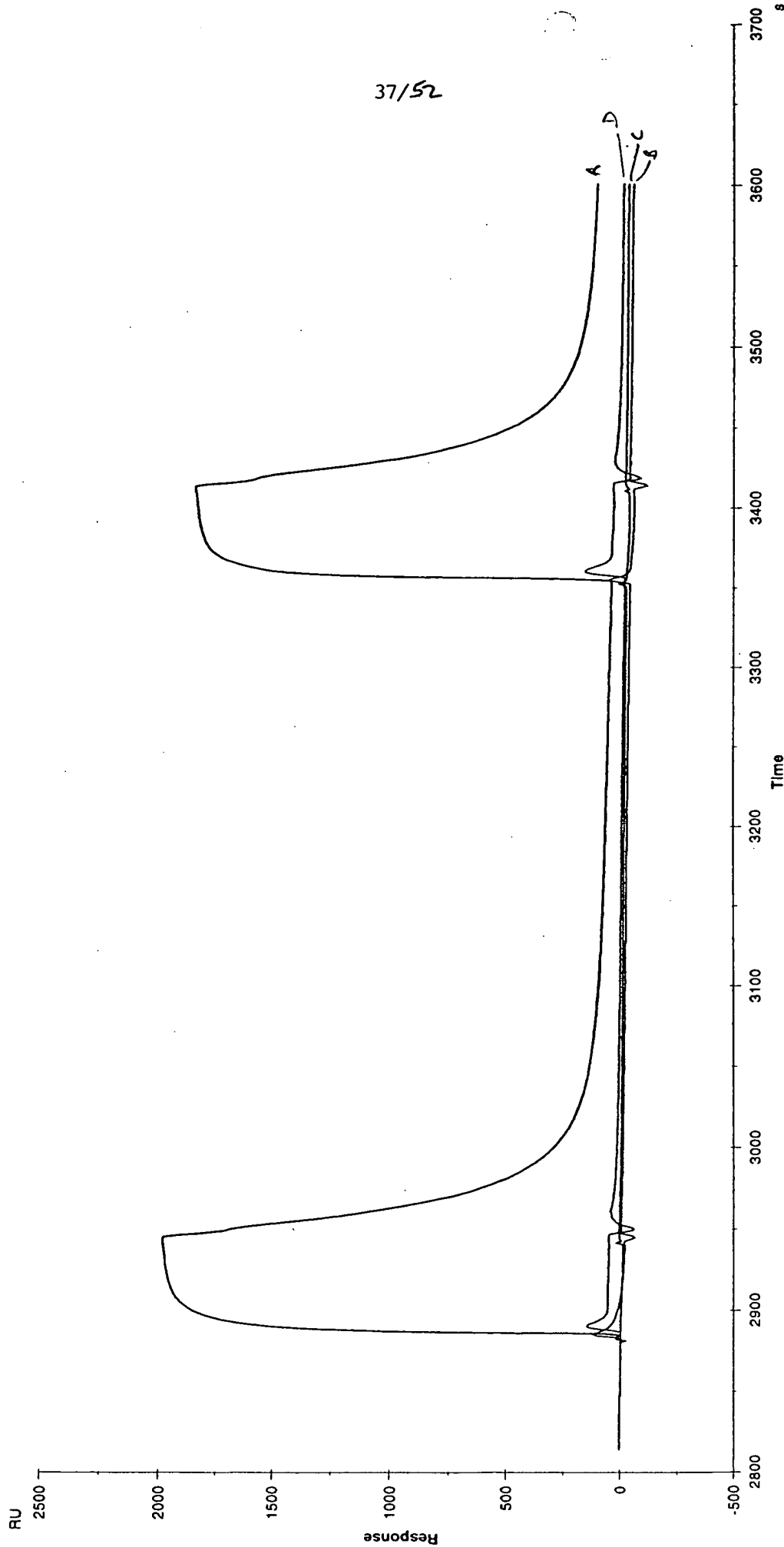
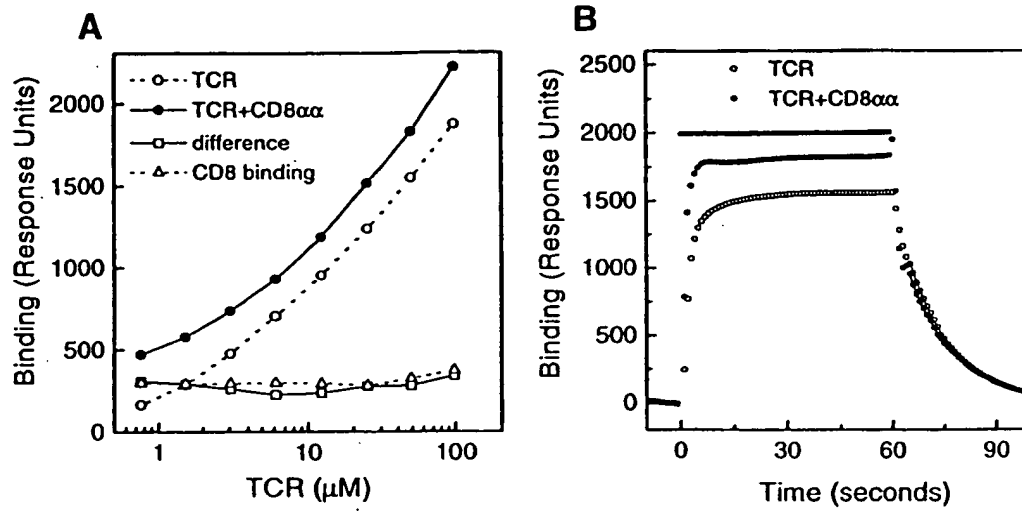


Figure 31



39/52

FIGURE 32

TCR alfa>

M Q L L E Q S P Q F L S I Q E G E N L T  
ATGCAaCTaCTaGAaCAaAGtCCTCAGTTTCTAAGCATCCAAGAGGGAGAAAATCTCACT

V Y C N S S S V F S S L Q W Y R Q E P G  
GTGTACTGCAACTCCTCAAGTGTTTTTCCAGCTTACAATGGTACAGACAGGAGCCTGGG

E G P V L L V T V V T G G E V K K L K R  
GAAGGTCTGTCTCCTGGTGACAGTAGTTACGGGTGGAGAAGTGAAGAAGCTGAAGAGA

L T F Q F G D A R K D S S L H I T A A Q  
CTAACCTTTCAGTTTGGTGATGCAAGAAAGGACAGTTCTCTCCACATCACTGCGGCCAG

P G D T G L Y L C A G A G S Q G N L I F  
CCTGGTGATACAGGCCTCTACCTCTGTGCAGGAGCGGGAAGCCAAGGAAATCTCATCTTT

G K G T K L S V K P N I Q N P D P A V Y  
GGAAAAGGCACTAAACTCTCTGTAAACCAAATATCCAGAACCCTGACCCTGCCGTGTAC

Q L R D S K S S D K S V C L F T D F D S  
CAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGCCTATTACCGATTTTGATTCT

Q T N V S Q S K D S D V Y I T D K T V L  
CAAACAAATGTGTACAAAGTAAGGATTCTGATGTGTATATCACAGACAAAATGTGCTA

D M R S M D F K S N S A V A W S N K S D  
GACATGAGGTCTATGGACTTCAAGAGCAACAGTGCTGTGGCCTGGAGCAACAAATCTGAC

F A C A N A F N N S I I P E D T F F P S  
TTTGCATGTGCAAACGCCTTCAACAACAGCATTATTCAGAAGACACCTTCTTCCCCAGC

<TCR alfa linker c-jun>

P E S S P G G R I A R L E E K V K T L K  
CCAGAAAGTTCCcccgggGGTAGAATCGCCCGGCTGGAGGAAAAAGTGAAAACCTTGAAA

A Q N S E L A S T A N M L R E Q V A Q L  
GCTCAGAACTCGGAGCTGGCGTCCACGGCCAACATGCTCAGGGAACAGGTGGCACAGCTT

K Q K V M N Y \*  
AAACAGAAAGTCATGAACACTACTAG

TCR alpha

40/52

FIGURE 33

TCR beta>  
M V D G G I T Q S P K Y L F R K E G Q N  
ATGGTGGATGGTGAATCACTCAGTCCCCAAAGTACCTGTTCAGAAAGGAAGGACAGAAT  
  
V T L S C E Q N L N H D A M Y W Y R Q D  
GTGACCCTGAGTTGTGAACAGAATTTGAACCACGATGCCATGTACTGGTACCGACAGGAC  
  
P G Q G L R L I Y Y S Q I V N D F Q K G  
CCAGGGCAAGGGCTGAGATTGATCTACTACTCACAGATAGTAAATGACTTTCAGAAAGGA  
  
D I A E G Y S V S R E K K E S F P L T V  
GATATAGCTGAAGGTACAGCGTCTCTCGGGAGAAGAAGGAATCCTTTCCTCTCACTGTG  
  
T S A Q K N P T A F Y L C A S S S R S S  
ACATCGGCCCAAAGAACCCGACAGCTTTCTATCTCTGTGCCAGTAGTTCGAGGAGCTCC  
  
Y E Q Y F G P G T R L T V T E D L K N V  
TACGAGCAGTACTTCGGGCCGGGCACCAGGCTCACGGTCACAGAGGACCTGAAAAACGTT  
  
F P P E V A V F E P S E A E I S H T Q K  
TTCCACCCGAGGTCGCTGTGTTGAACCATCAGAAGCAGAGATCTCCACACCCAAAAG  
  
A T L V C L A T G F Y P D H V E L S W W  
GCCACACTGGTGTGCCTGGCCACAGGCTTCTACCCCGACCACGTGGAGCTGAGCTGGTGG  
  
V N G K E V H S G V S T D P Q P L K E Q  
GTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCACAGACCCGAGCCCCTCAAGGAGCAG  
  
P A L N D S R Y S L S S R L R V S A T F  
CCCCGCCCTCAATGACTCCAGATACTCCCTGAGCAGCCGCCTGAGGGTCTCGGCCACCTTC  
  
W Q N P R N H F R C Q V Q F Y G L S E N  
TGCGAGAACCCCGCAACCACTTCCGCTGTCAAGTCCAGTTCTACGGGCTCTCGGAGAAT

FOET 14326-11301



41/52

D E W T Q D R A K P V T Q I V S A E A W  
GACGAGTGGACCCAGGATAGGGCCAAACCTGTCACCCAGATCGTCAGCGCCGAGGCCTGG  
<TCR beta linker c-fos>  
G R A D P G G L T D T L Q A E T D Q L E  
GGTAGAGCAGACcccgggGGTCTGACTGATACACTCCAAGCGGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L  
GACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAACTA

E F I L A A Y \*  
GAGTTCATCCTGGCAGCTTACTAG

10014326-111301

42/52

FIGURE 34

TCR beta>

M V D G G I T Q S P K Y L F R K E G Q N  
ATGGTGGATGGTGAATCACTCAGTCCCCAAAGTACCTGTTTCAGAAAGGAAGGACAGAAT

V T L S C E Q N L N H D A M Y W Y R Q D  
GTGACCCTGAGTTGTGAACAGAATTTGAACCACGATGCCATGTACTGGTACCGACAGGAC

P G Q G L R L I Y Y S Q I V N D F Q K G  
CCAGGGCAAGGGCTGAGATTGATCTACTACTCACAGATAGTAAATGACTTTTCAGAAAGGA

D I A E G Y S V S R E K K E S F P L T V  
GATATAGCTGAAGGGTACAGCGTCTCTCGGGAGAAGAAGGAATCCTTTCCTCTCACTGTG

T S A Q K N P T A F Y L C A S S S R S S  
ACATCGGCCCAAAGAACCCGACAGCTTCTATCTCTGTGCCAGTAGTTCGAGGAGCTCC

Y E Q Y F G P G T R L T V T E D L K N V  
TACGAGCAGTACTTCGGGCCGGGCACCAGGCTCACGGTCACAGAGGACCTGAAAAACGTT

F P P E V A V F E P S E A E I S H T Q K  
TTCCACCCGAGGTCGCTGTGTTTGAACCATCAGAAGCAGAGATCTCCACACCCAAAAG

A T L V C L A T G F Y P D H V E L S W W  
GCCACACTGGTGTGCCTGGCCACAGGCTTCTACCCCGACCACGTGGAGCTGAGCTGGTGG

V N G K E V H S G V S T D P Q P L K E Q  
GTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCACAGACCCGAGCCCTCAAGGAGCAG

P A L N D S R Y S L S S R L R V S A T F  
CCCGCCCTCAATGACTCCAGATACTCCCTGAGCAGCCGCTGAGGGTCTCGGCCACCTTC

W Q N P R N H F R C Q V Q F Y G L S E N  
TGGCAGAACCCCGCAACCACTTCCGCTGTCAAGTCCAGTCTACGGGCTCTCGGAGAAT

10044366-44304

43/52

D E W T Q D R A K P V T Q I V S A E A W  
GACGAGTGGACCCAGGATAGGGCCAAACCTGTCACCCAGATCGTCAGCGCCGAGGCCTGG

<TCR beta linker c-fos>

G R A D P G G L T D T L Q A E T D Q L E  
GGTAGAGCAGACccccgggGGTCTGACTGATACACTCCAAGCGGAGACAGATCAACTTGAA

D K K S A L Q T E I A N L L K E K E K L  
GACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAAACTA

linker Biotinylation tag>

E F I L A A Y G S G G G L N D I F E A Q  
GAGTTCATCCTGGCAGCTTACg gatccGGTGGTGGTCTGAACGATATTTTGAAGCTCAG

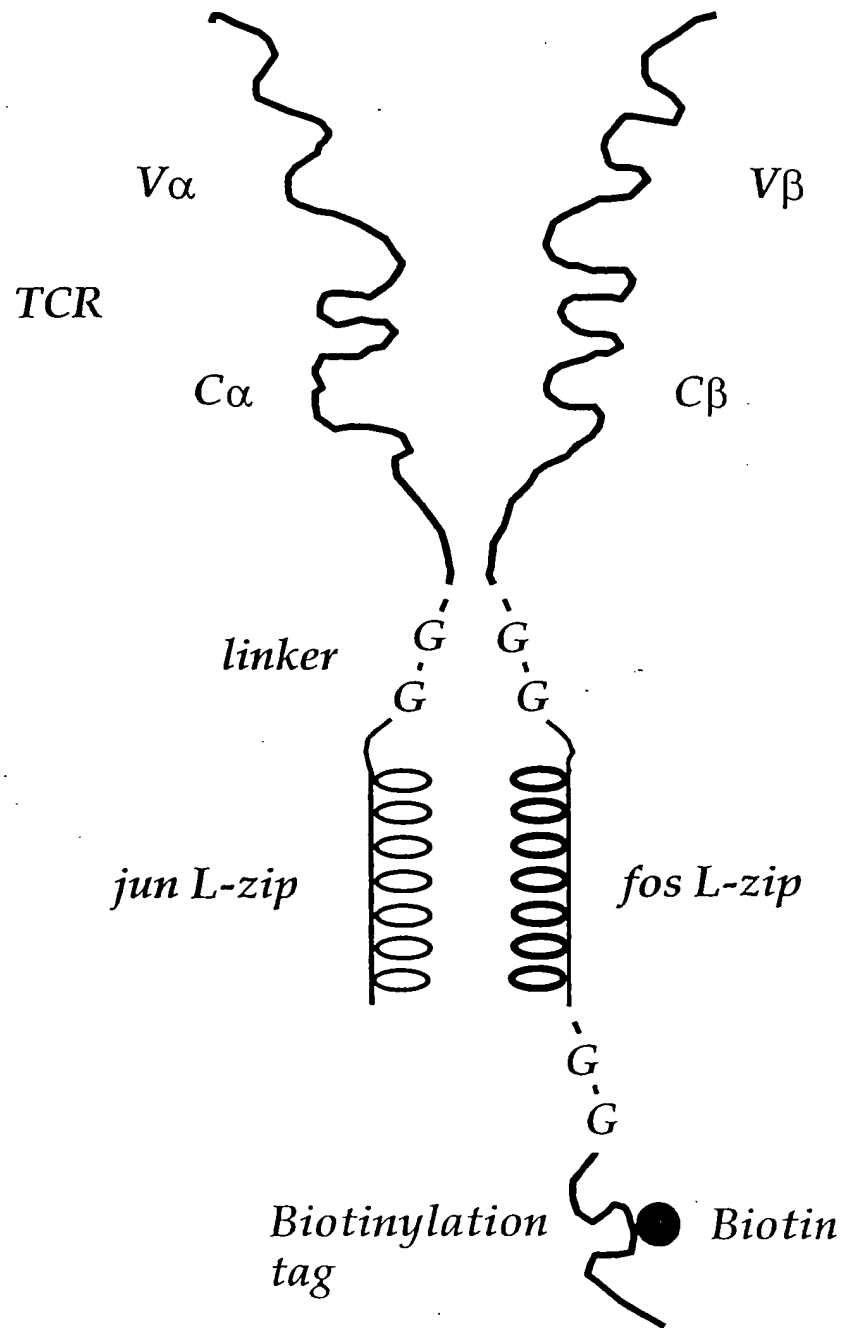
K I E W H \*

AAAATCGAATGGCATTAA

TCR beta " secretory"

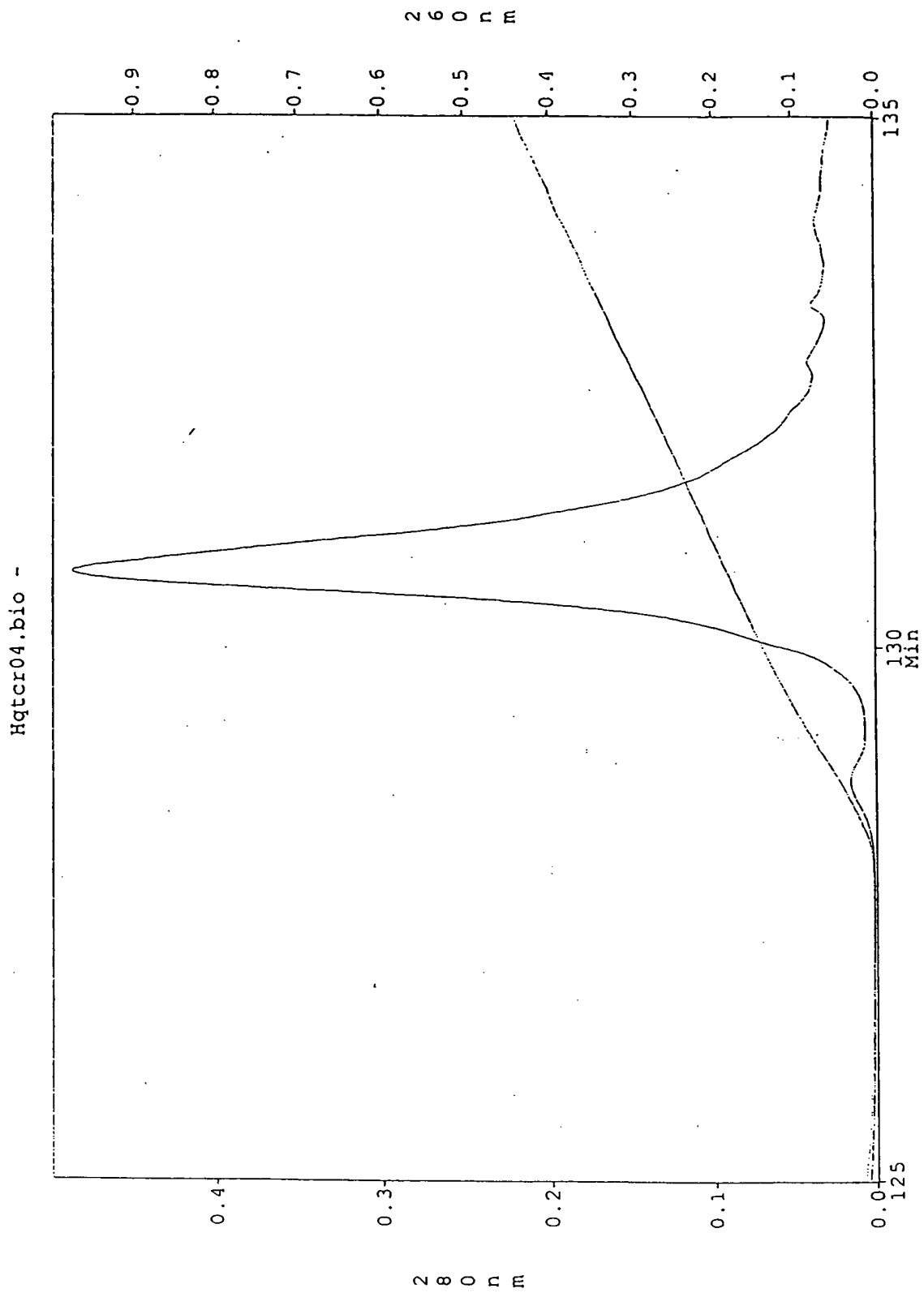
44152

FIGURE 35

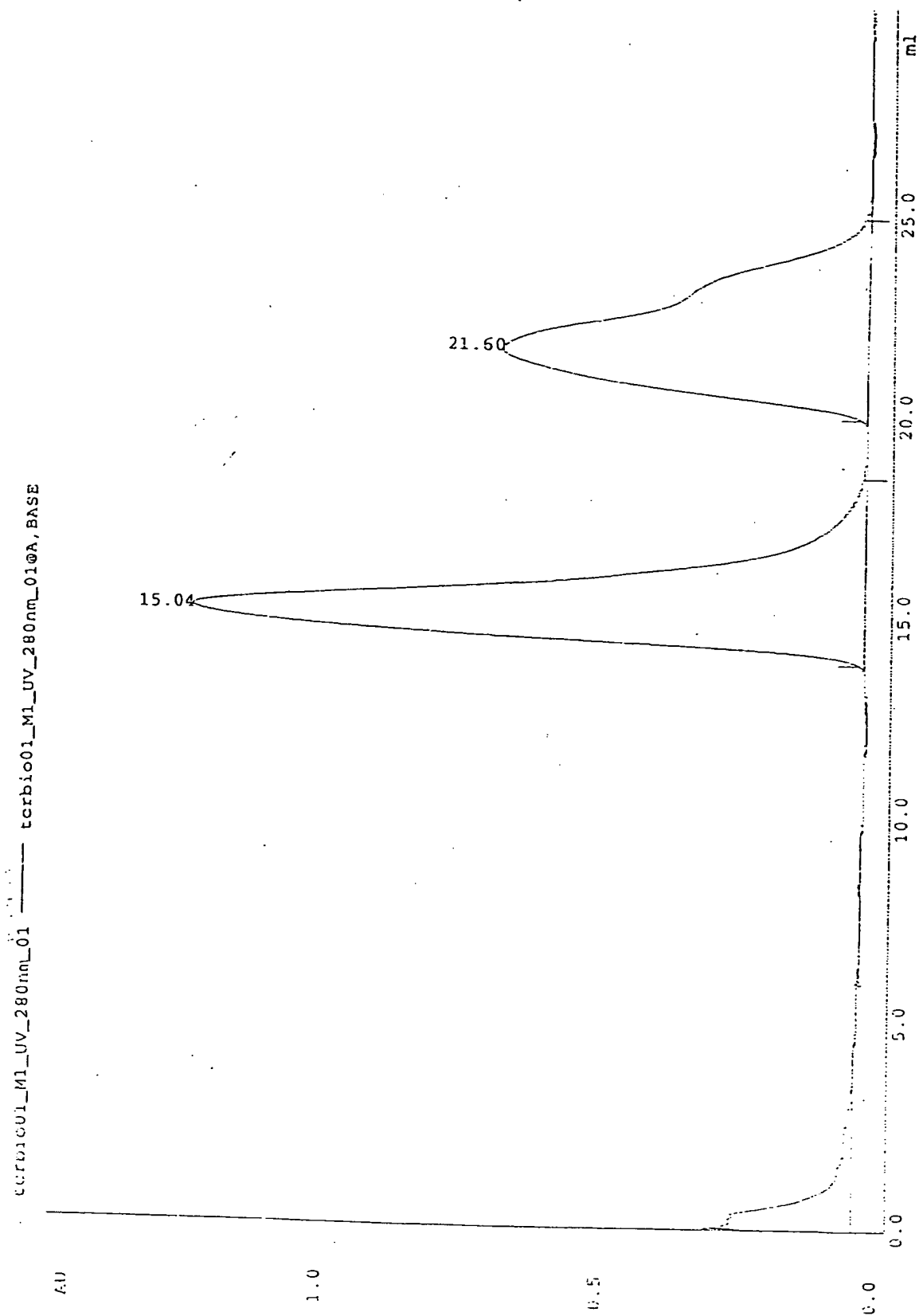


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45/52  
FIGURE 36



46152  
FIGURE 37



47/52

FIGURE 38

TCR alfa>  
M Q K E V E Q N S G P L S V P E G A I A  
atgCAGAAGGAAGTGGAGCAGAACTCTGGACCCCTCAGTGTTCAGAGGGAGCCATTGCC

S L N C T Y S D R G S Q S F F W Y R Q Y  
TCTCTCAACTGCACTTACAGTGACCGAGGTTCCCAGTCCTTCTTCTGGTACAGACAATAT

S G K S P E L I M S I Y S N G D K E D G  
TCTGGGAAAAGCCCTGAGTTGATAATGTCCATATACTCCAATGGTGACAAAGAAGATGGA

R F T A Q L N K A S Q Y V S L L I R D S  
AGGTTTACAGCACAGCTCAATAAAGCCAGCCAGTATGTTTCTCTGCTCATCAGAGACTCC

Q P S D S A T Y L C A V T T D S W G K L  
CAGCCCAGTGATTCAGCCACCTACCTCTGTGCCGTTACAACCTGACAGCTGGGGGAAATTG

Q F G A G T Q V V V T P D I Q N P D P A  
CAGTTTGGAGCAGGGACCCAGGTTGTGGTCACCCAGATATCCAGAACCCTGACCCTGCC

V Y Q L R D S K S S D K S V C L F T D F  
GTGTACCAGCTGAGAGACTCTAAATCCAGTGACAAGTCTGTCTGCCTATTCACCGATTTT

D S Q T N V S Q S K D S D V Y I T D K T  
GATTCTCAAACAAATGTGTCACAAAGTAAGGATTCTGATGTGTATATCACAGACAAAAC

V L D M R S M D F K S N S A V A W S N K  
GTGCTAGACATGAGGTCTATGGACTTCAAGAGCAACAGTGCTGTGGCCTGGAGCAACAAA

S D F A C A N A F N N S I I P E D T F F  
TCTGACTTTGCATGTGCAAACGCCTTCAACAACAGCATTATTCCAGAAGACACCTTCTTC

<TCR alfa linker c-jun>  
P S P E S S P G G R I A R L E E K V K T  
CCCAGCCCAGAAAGTTCCcccgggGGTAGAATCGCCCGGCTGGAGGAAAAAGTGAAAACC

L K A Q N S E L A S T A N M L R E Q V A  
TTGAAGCTCAGAACTCGGAGCTGGCGTCCACGGCCAACATGCTCAGGGAACAGGTGGCA

Q L K Q K V M N Y \*  
CAGCTTAAACAGAAAGTCATGAACACTACTAG

10014326-11301

48/52

FIGURE 39

TCR beta>  
M N A G V T Q T P K F Q V L K T G Q S M  
atgAACGCTGGTGTCACTCAGACCCCAAAATTCCAGGTCCTGAAGACAGGACAGAGCATG

T L Q C A Q D M N H E Y M S W Y R Q D P  
ACACTGCAGTGTGCCAGGATATGAACCATGAATACATGTCCTGGTATCGACAAGACCCA

G M G L R L I H Y S V G A G I T D Q G E  
GGCATGGGGCTGAGGCTGATTCACTACTCAGTTGGTGTCTGGTATCACTGACCAAGGAGAA

V P N G Y N V S R S T T E D F P L R L L  
TGCCCAATGGCTACAATGTCTCCAGATCAACCACAGAGGATTTCCCGCTCAGGCTGCTG

S A A P S Q T S V Y F C A S R P G L A G  
TCGGCTGCTCCCTCCCAGACATCTGTGTACTTCTGTGCCAGCAGGCCGGGACTAGCGGGA

G R P E Q Y F G P G T R L T V T E D L K  
GGGCGACCAGAGCAGTACTTCGGGCCGGGCACCAGGCTCACGGTCACAGAGGACCTGAAG

N V F P P E V A V F E P S E A E I S H T  
AACGTGTTCCCACCCGAGGTCGCTGTGTTTGAGCCATCAGAAGCAGAGATCTCCCACACC

Q K A T L V C L A T G F Y P D H V E L S  
CAAAAGGCCACACTGGTGTGCCTGGCCACAGGCTTCTACCCCGACCACGTGGAGCTGAGC

W W V N G K E V H S G V S T D P Q P L K  
TGGTGGGTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCACAGACCCGAGCCCCTCAAG

E Q P A L N D S R Y A L S S R L R V S A  
GAGCAGCCCGCCCTCAATGACTCCAGATACgctCTGAGCAGCCGCCTGAGGGTCTCGGCC

T F W Q N P R N H F R C Q V Q F Y G L S  
ACCTTCTGGCAGAACCCCGCAACCACTTCGCTGTCAAGTCCAGTTCTACGGGCTCTCG

E N D E W T Q D R A K P V T Q I V S A E  
GAGAATGACGAGTGGACCCAGGATAGGGCCAAACCTGTCACCCAGATCGTCAGCGCCGAG

<TCR beta linker c-fos>  
A W G R A D P G G L T D T L Q A E T D Q  
GCCTGGGGTAGAGCAGACcccgggGGTCTGACTGATACACTCCAAGCGGAGACAGATCAA

10014326-11301



49/52

L E D K K S A L Q T E I A N L L K E K E  
CTTGAAGACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAA

K L E F I L A A Y G S G G G L N D I F E  
AAACTAGAGTTCATCCTGGCAGCTTACggatccGGTGGTGGTCTGAACGATATTTTGTAA

A Q K I E W H \*  
GCTCAGAAAATCGAATGGCATTAAAGCTT

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FIGURE 40

R E Q V A Q L K Q K V M N Y \*  
AGGGAACAGGTGGCACAGCTTAAACAGAAAGTCATGA ACTACTAG

51/52

FIGURE 41

TCR beta>  
M N A G V T Q T P K F Q V L K T G Q S M  
atgAACGCTGGTGTCACTCAGACCCCAAAATTCCAGGTCCTGAAGACAGGACAGAGCATG

T L Q C A Q D M N H E Y M S W Y R Q D P  
ACACTGCAGTGTGCCAGGATATGAACCATGAATACATGTCCTGGTATCGACAAGACCCA

G M G L R L I H Y S V G A G I T D Q G E  
GGCATGGGGCTGAGGCTGATTCATTACTCAGTTGGTGCTGGTATCACTGACCAAGGAGAA

V P N G Y N V S R S T T E D F P L R L L  
GTCCCCAATGGCTACAATGTCTCCAGATCAACCACAGAGGATTTCCCGCTCAGGCTGCTG

S A A P S Q T S V Y F C A S S Y P G G G  
TCGGCTGCTCCCTCCCAGACATCTGTGTACTTCTGTGCCAGCAGTTACCaGGaGGGGGG

F Y E Q Y F G P G T R L T V T E D L K N  
TTTTACGAGCAGTACTTCGGGCCGGGCACCAGGCTCACGGTCACAGAGGACCTGAAAAAC

V F P P E V A V F E P S E A E I S H T Q  
GTGTTCCACCCGAGGTCGCTGTGTTGAGCCATCAGAAGCAGAGATCTCCACACCCAA

K A T L V C L A T G F Y P D H V E L S W  
AAGGCCACACTGGTGTGCCTGGCCACAGGCTTCTACCCGACCACGTGGAGCTGAGCTGG

W V N G K E V H S G V S T D P Q P L K E  
TGGGTGAATGGGAAGGAGGTGCACAGTGGGGTCAGCACAGACCCGAGCCCCTCAAGGAG

Q P A L N D S R Y A L S S R L R V S A T  
CAGCCCCGCCCTCAATGACTCCAGATACgctCTGAGCAGCCGCTGAGGGTCTCGGCCACC

F W Q D P R N H F R C Q V Q F Y G L S E  
TTCTGGCAGgACCCCGCAACCACTTCCGCTGTCAAGTCCAGTTCTACGGGCTCTCGGAG

N D E W T Q D R A K P V T Q I V S A E A  
AATGACGAGTGGACCCAGGATAGGGCCAAACCCGTACCCAGATCGTCAGCGCCGAGGCC

<TCR beta linker c-fos>  
W G R A D P G G L T D T L Q A E T D Q L  
TGGGGTAGAGCAGACcccgggGGTCTGACTGATACACTCCAAGCGGAGACAGATCAACTT

10014326-11301

52/52

E D K K S A L Q T E I A N L L K E K E K  
GAAGACAAGAAGTCTGCGTTGCAGACCGAGATTGCCAATCTACTGAAAGAGAAGGAAAAA

linker Biotinylation tag>  
L E F I L A A Y G S G G G L N D I F E A  
CTAGAGTTCATCCTGGCAGCTTACggatccGGTGGTGGTCTGAACGATATTTTGAAGCT

Q K I E W H \*  
CAGAAAATCGAATGGCATTAAAGCTT

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